

Reply to Office Action of 12/14/2006

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REMARKS*Regarding the Specification*

The O.A. asserts:

Claims 5 and 7 recite a computer program product and computer-readable medium; there is insufficient antecedent basis for those limitations in the claims.

While one skilled in the art of the disclosed technology would understand that signal filters are typically implemented in software on programmable devices, the Specification has been modified by placing the paraphrased text of the Claims 5-8 (part of the original disclosure) at the end of the written description as paragraphs [0040]-[0043].

*Regarding the Claim Rejections – 35 USC §101*

The O.A. asserts:

Claim 1 recites an algorithm of how to calculate filter coefficients with no practical application.

Claim 3 recites steps of modifying the vector with no practical application.

A practical application is stated clearly in each claim:

... *adaptive filtering* ...

... *adaptively analyzing* ...

Adaptive filtering is readily recognized by one skilled in the art as a useful, concrete, and tangible. Adaptive analysis is readily recognized by one skilled in the art as the first part of the two-part analysis/synthesis process for adaptive digital filtering. *See e.g.*, U.S. Pat. App. No. 09/933,004 entitled System and Method for Adaptive Filtering, filed August 21, 2001, and now issued as U.S. Pat. No. 7,120,657.

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Further, the written description recites at least the following practical applications  
<expanded acronym and bold emphasis added>:

[0030] *The MWF <Multistage Wiener Filter> can be obtained similarly ...*

[0031] *... The equations provide a way of representing the MWF <Multistage Wiener Filter> ... filter coefficients ...*

[0032] *Simulations of the performance of a receiver of the present invention (an multipath MWF receiver ...*

Through these examples, it is evident that adaptive filtering using an MWF in a receiver or other device is a practical application. To this extent at least, the OA does not establish a *prima facie* case of unpatentability under 35 USC §101. Nonetheless, Claims 9-12 have been added to explicitly claim adaptive filtering in a Multistage Wiener Filter (MWF).

The OA asserts that Claims 5 and 7 (and through dependence Claims 6 and 8):

Recite "one program module" that directs to non-statutory subject matter.

There is nothing unstatutory about claiming one or more program modules on a computer readable medium. For at least this reason, the OA does not state a *prima facie* case of unpatentability under 35 USC §101.

***Regarding New Claims 41-50***

Claims 9-12 have been added to address the objection raised in the OA. No new matter has been introduced to the application.

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CONCLUSION

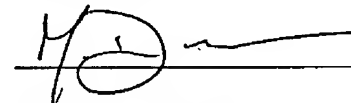
The foregoing is submitted as a full and complete response to the OA mailed 12/14/2006 and the Notice of Non-Compliant Amendment mailed 05/02/07. With consideration of the above remarks and amendments, the undersigned submits that this application is in condition for allowance, and such disposition is earnestly solicited.

No new matter has been added to the disclosure. An examination on the merits at your earliest convenience is respectfully requested. Please contact undersigned with any questions that will expedite prosecution.

The undersigned requests an interview with the Examiner at the earliest mutual convenience of the Examiner, the undersigned, and the Applicant.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1458, and please credit any excess fees to such deposit account.

Respectfully submitted,

Date: May 14, 2007  
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